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EXAMINER
NGUYEN, MAIKHANH

ART UNIT	PAPER NUMBER
2176	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	**Application No.** 09/840,737	**Applicant(s)** WHITE, DAVID J.	
	Examiner Maikhanh Nguyen	**Art Unit** 2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 April 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *8,9 and 12-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8, 9, and 12-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the Restriction Requirement filed 09/17/2007.

Claims 1-48 and 53-73 are pending in this application. Applicant has elected group II (claims 8, 9, and 12-48, 55, and 56) for examination.

It is noted that there was an inadvertent typographical inclusion of claims 55 and 56 in group II. Claims 55 and 56 should belong to group III. Therefore, claims 8, 9, and 12-48 are examined.

Applicant is required to cancel non-elected claims 1-7, 53-56, and 58-73 in the next response to this office action.

Election/Restrictions

2. Applicant's election without traverse of group II, claims 8, 9, and 12-48, in the reply filed on 04/27/2007 is acknowledged.

Specification

3. Examiner requests that Applicant review the application carefully for informalities including typographical errors.

Descriptive Title Required

The title of the invention is not descriptive. The title should be as "specific as possible" 37 CFR 1.72 while not exceeding "500 characters in length". The title should provide "informative value" and serve to aid in the "indexing, classifying, searching" and other Official identification functions. A new title is required that is clearly indicative of the invention to which the claims are directed. MPEP606.01

Applicant is reminded of the proper language and format for an abstract of the disclosure. See MPEP § 608.01(b).

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> *(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.*

Claims 8, 9, and 12-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hyman et al.** (US 6772395, filed February 1, 2000), as cited in the IDS filed 03/13/2006.

As to claim 8:

Hyman teaches a method of generating customized versions of a document using a computer system *(see the Abstract and Figs. 4A-7)*, the method comprising:

- storing the document in raw form *(e.g., data input elements are provided in the form of XML trees; see col. 3, lines 20-35, col.6, lines 50-67 & Figs. 2A-6A and associated text)*;
- parsing the document to create an internal representation of the document *(e.g., process the input XML tree 200 to create an output tree ... preserving the order and structure of the input tree ... Each processing element 210, 220 generates a respective output 216 and 226 ... each of the processing elements 210 and 220*

are top-level processing elements, in that they each typically would represent a region of an HTML page; see col. 7, line 35-col.8, line 13; see also, Figs. 4A-7);

- decomposing the document to create the second-level document *(FIG. 4A illustrates an input tree 400 containing nested processing element 410. Processing element 410 is nested within the data input of the top-level processing element 420 ... traversing the tree, emitting elements into the new tree when the current element is not the same as the previous element; see col. 9, lines 1-30; see also, Figs. 4A-7),* wherein decomposing the document comprises:

  applying a first first-level transform to the internal representation of the document to create a first first-level document *(e.g., the first processing element having a first data input and a first transformation input and generating a first output by applying a transformation represented by the first transformation input to the data represented by the first data input; see claims 1, 12 and 20; see also, Figs. 4A-7)*; and

  applying a second-level transform to the first first-level document to create the second level document *(e.g. the second processing element having a second data input and a second transformation input and generating a second output; see claims 1, 12, and 20; see also, Figs. 4A-7);* and

- decomposing the document to create a second first-level document, wherein decomposing the document to create the second first-level document comprises: applying a second first-level transform to the internal representation of the document to create a second first-level document *(e.g., providing the first output tree to the second processing element as one of the second data input tree or the second transformation input tree; generating a second output tree by applying the second transformation input tree to the second data input tree; see claims 1, 12, and 20; see also, Figs. 4A-7)* wherein the first first-level document and the second first-level document are different *(see items 400, 410, 420 in Fig. 4A).*

Hyman does not specifically teach receiving a request. Hyman, however, teaches *"messages may be generated by a variety of different mechanisms... The user interacts with that HTML and causes a response to be sent to the server ... The message can cause some type of execution"* (see *col.11, lines 33-61).*

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have applied Hyman's teachings to include the claimed "receiving a request" because it would have provided a way to dynamically alter the characteristics of one or more processing elements based on specific services conveyed to the processing element network.

As to claim 9:

Hyman teaches applying sequential transforms to the document *(e.g., FIG. 4A illustrates an input tree 400 containing nested processing element 410. Processing element 410 is nested within the data input of the top-level processing element 420 and includes a transformation input "getdistinct.xsl" which accomplishes the function of transforming an input tree of elements into an output tree of distinct elements, i.e., repetitions in the input data are eliminated; see col. 7, lines 10-30).*

As to claim 12:

Hyman teaches a third-level transform to the second level document to create a third-level document *(see col.9, line 31-col.10, line 62, col.11, lines 17-59, and col.12, lines 18-58).*

As to claim 13:

Hyman teaches the document is stored in raw XML form *(e.g., the form of XML trees; see col. 3, lines 20-35, col.6, lines 50-67 & figs. 2A-6A and associated text).*

As to claim 14:

Refer to the discussion of claim 9 above for rejection.

As to claim 15:

Hyman teaches applying a subscription-level transform to the internal representation of the document to create a subscription-level document *(e.g., the data input of the top-level processing element 420 and includes a transformation input "getdistinct.xsl" which accomplishes the function of transforming an input tree of elements into an output tree of distinct elements, i.e., repetitions in the input data are eliminated. As will be recognized by those of ordinary skill, the transformation input "getdistinct.xsl" may involve conventional methods for determining distinct elements from an input set. For example, one approach for collecting distinct elements would involve sorting the input tree by element name, setting a variable representing the previous element to null, traversing the tree, emitting elements into the new tree when the current element is not the same as the previous element, setting the previous element to the current element, and setting the current element to the next element in the tree and repeating the process. Top-level processing element 420 includes a transformation input "process.xsl" which creates the HTML for an input data tree; see col. 9, lines 1-30).*

As to claim 16:

Hyman teaches the subscription-level transform enables content filtering of the internal representation in accordance with a user's request *(see col. 9, lines 51-65, col.11, lines 5-59).*

As to claim 17:

Hyman teaches applying an organization-level transform to the subscription-level document to create an organization-level document *(e.g., consider a web page where the customer is placing an order. The server constructs a set of HTML enabling the user to place an order. The user interacts with that HTML and causes a response to be sent to the server. Because the web is by nature a stateless disconnected system, the response sent to the server needs to send a complete set of information enabling the server to reestablish state (the state of placing a specific order for a specific customer; see col. 11, lines 33-58).*

As to claim 18:

Hyman teaches the organization-level transform enables subscription-specific content filtering of a subscription-level document *(e.g., processing elements which expose particular schema for permitting authoring tools and services to query the types of information and formats expected by the inputs and outputs of the processing elements. In an XML implementation, the schema for a particular processing element provides a description of the expected format of the input tree and the transform tree and describes any methods available on the processing element; col. 9, lines 51-65 and col.11, lines 5-54).*

As to claim 19:

Hyman teaches applying a presentation-level transform to the organization-level document to create a presentation-level document *(e.g., a printable HTML document or a binary representation; see col. 7, lines 15-33).*

As to claim 20:

Hyman teaches the presentation-level transform generates an organization-specific document for end user presentation *(e.g., a user interface for presenting the processing elements and associated property sets to a user to enable the user to functionally connect processing elements. According to the invention, such a mechanism first identifies a processing node or element by first traversing through the input tree ... by constructing an HTML view; see col. 10, lines 1-49 & fig.7 and associated text).*

As to claim 21:

Hyman teaches the presentation- level transform generates an HTML document for end user presentation *[transform the order in which elements appear in the input document. Also importantly, XSL is written in XML itself. Thus, transformations may be performed on XSL and the same parser that manipulates XML data can also, with appropriate XSL processing features, reference, retrieve, and manipulate the XSL. XSL is thus a transformational language ... convert it to another XML document, an HTML document, a printable HTML document, a standard ASCII text file, a proprietary text format, a* *proprietary text format, or conceivably even a binary representation; see col.7, lines 15-33, col.9, lines 27-42, col. 10, lines 1-49].*

As to claim 22:

Hyman teaches the subscription- level transform is mandatory and the organization-level and presentation-level transforms are optional *(see col.7, line 15- col.8, line 67).*

As to claim 23:

Hyman teaches a transform is applied to a document only as a result of an initial demand for a transformed document (*see col. 12, line 59-col. 14, line 12).*

As to claim 24:

Hyman teaches the demand for a transformed document is a client request *(e.g., particular user action, i.e., mouse clicks, on a user interface; see col. 11, lines 54-59).*

As to claim 25:

Hyman teaches the demand for a transformed document is a document publication process *(e.g., a printable HTML document or a binary representation; see col. 7, lines 15-33, col.10, lines 9-49 and fig.7 and associated text).*

As to claim 26:

Hyman teaches transformed documents are written to a cache *(e.g., a caching system ... transformation tree; see col. 12, line 59-col. 14, line 12).*

As to claim 27:

Hyman teaches demands for a transformed document, subsequent to the initial demand, are referred to the cache (*see col.4, lines 15-28, col.13, line 34-col.14, line 26).*

As to claims 28, 29, and 30:

Refer to claims 8, 9, and 13 above. Claims 28, 29, and 30 are the same as claims 8, 9, and 13, except claims 28, 29, and 30 are computer program medium claims and claims 8, 9, and 13 are method claims.

As to claim 31:

Hyman teaches the document stored in XML form is parsed by an XML parser to create the internal representation *(e.g., XML document ... transformations may be performed on XSL and the same parser that manipulates XML data ... a printable HTML document or a binary representation; see col. 7, lines 15-33).*

As to claim 32:

Hyman teaches the internal representation level of the document is transformed to a subscription-level document by applying a subscription-level transform to the internal representation *(see col.7, lines 15-33; col.9, lines 10-50; col.11, lines 17-59).*

As to claim 33:

Hyman teaches application of the subscription level transform to the internal representation to create a subscription-level document is required *(see col.7, lines 15-33; col.9, lines 10-50; col.11, lines 17-59).*

As to claim 34:

Hyman teaches the subscription-level document is transformed into an organization- level document by applying an organization-level transform to the subscription-level document *(see Figs. 4A-7 and the associated text).*

As to claim 35:

Hyman teaches application of the organization-level transform to the subscription- level document to create an organization-level document is optional *(see Figs. 4A-7 and the associated text).*

As to claim 36:

Hyman teaches the internal representation of the document is decomposed to a transform-level document only in response to a request for a transform-level document *(see Figs. 4A-7 and the associated text).*

As to claim 37:

Refer to the discussion of claim 26 for rejection.

As to claim 38:

Hyman teaches an initial request for a transformed document causes decomposition of the internal representation into the form requested *(e.g., XML tree in which three of the elements within the "unique" element in the data tree have message queries. In this case, two elements, the "apples" and "oranges" elements are associated with the same message query "firstitem," while the other element "bananas" is associated with a different message query "seconditem" ... consider a web page where the customer is placing an order. The server constructs a set of HTML enabling the user to place an order ... dynamic modifications to the overall process defined by the processing elements in a particular tree. For example, the data source may be changed based on messages that are generated on the message bus 550 in response to particular user actions, i.e., mouse clicks, on a user interface; see col. 11, lines 5-59) and* wherein subsequent requests for a transformed document causes the transformed document to be retrieved from memory *(e.g., The end result of executing the tree is an HTML file containing a table with two rows, as shown in FIG. 2C. Note that the first row depends upon data coming from "index.xml" and that the second row depends upon data coming from "bookinfo.xml." When executing this tree, the results of the first row can cached and the results of the second row can be cached. If the tree is reexecuted and "bookinfo.xml" and "index.xml" have not changed, and the transformation inputs have not changed, both rows can be retrieved from the cache. If "bookinfo.xml" has changed, the "bookinfo" processing element 220 is reevaluated and thus the associated row is recomputed. Yet, if "index.xml" has not changed, the associated row can be retrieved directly from the cache without performing any computations; see col.13, lines 6-20).*

As to claim 39:

Hyman teaches tracking the dependencies of a transformed document; and regenerating the transformed document when any dependency related to the document changes *(e.g., dependency analysis on the architecture to determine which processing elements must be reevaluated upon a change in data, transformation input or messages ... storing the evaluation of each individual processing element. Upon a change in data, messages, or transformation input, the reevaluation of particular processing elements can be controlled based on the dependency analysis; see col.4, lines 15-28, col.12, line 59-col.14, line 24).*

As to claim 40:

Hyman teaches designating a cached version of the document invalid when any dependency related to the document changes, and regenerating the transformed document in response to a request for the document that is made after the dependency change *(e.g., when a particular node is changed, the result of the entire tree may be regenerated according to the following general steps, for example: first, the node that has changed is found. Then, all of the nodes linked to the changed node are traversed recursively. During this traversal, each time a linked node is encountered, that linked node needs to be reevaluated rather than being retrieved from the cache and all of its dependent nodes then need to be reevaluated. In this manner, a change will cause updates to all of the nodes affected by the change, but not to any nodes not affected by the change. After all of the results that need to be reevaluated have been updated, the complete tree evaluation can be found by simply aggregating the current cached results from the tree ... A dependency tree is built that indicates what needs to be reevaluated every time there is a change. When an item changes on the message bus, the corresponding node is found in the dependency tree, and the items that need to be updated are updated; see col.13, line 34-col.14, line 26).*

As to claims 41-47 and 48:

Refer to the discussion of claims 30-36 and 26 above, respectively, for rejections.

Response to Arguments

5. Applicant's arguments filed on 04/27/2007 have been fully considered but are deemed to be moot in view of the new grounds of rejection necessitated by Applicant's amendments.

The examiner believes that the newly applied prior art (Hyman) meets the limitations as claimed.

Conclusion

6. The prior art made of record, listed on PTO 892 provided to Applicant is considered to have relevancy to the claimed invention. Applicant should review each identified reference carefully before responding to this office action to properly advance the case in light of the prior art.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maikhanh Nguyen whose telephone number is (571) 272-4093. The examiner can normally be reached on Monday - Friday from 9:00am – 5:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Hutton can be reached at (571) 272-4137.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MN

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PRIMARY EXAMINER